

a basic exercise sequence for developing physical fitness through a Circuit Training program

Prepared for the President's Council on Physical Fitness and Sports by the SPORTS CENTER Where the new ideas are



THE WHITE HOUSE WASHINGTON

There are few sights more thrilling than the performance of a star athlete: 0. J. Simpson breaking through the line for a long run, Arnold Palmer smashing one long and high and straight down the fairway, Wilt Chamberlain grabbing a rebound beneath the boards.

But it is even more thrilling to discover our own level of physical performance, our own peak of fitness, to engage in programs and sports which call into play not only our muscles but our spirit.

For the young, physical fitness can and should mean more than the ability to participate in a sport; it can be a new sense of personal esteem, a pride in performance which extends far beyond the activity itself, a road to healthy growth and development of the body and the mind.

For the adult, it can often mean the difference between life and death. In this age of mechanization and automation, a program of physical fitness can restore and preserve the energy and endurance and sense of wellbeing which too often are missing in an increasingly sedentary way of life.

Our national goal is not to make every citizen an athlete, but to encourage every citizen to become aware of the pleasure and the challenge of physical fitness. In this way our fitness programs can make a significant contribution to the quality of our national life.

Ribay Niger

Richard M. Nixon

Why an Active Physical Fitness Program is Essential to the Strength of our Nation...

"Our own history, perhaps better than the history of any other great country, vividly demonstrates the truth of the belief that physical vigor and health are essential accompaniments to the qualities of intellect and spirit on which a nation is built."

JOHN F. KENNEDY

"During my many years in baseball, I saw a lot of great prospects come up to the major leagues and then drop out of sight in a few years. The people who stayed around and did the job were those who kept themselves in shape. It's my observation that the same thing is true in all walks of life."

TED WILLIAMS

Chairman, Sears Sports Advisory Staff

"There simply isn't any way to be fully effective—in sports, in politics, or in any other human endeavor—while operating at half-strength or half-speed. Physical fitness influences intellectual performance in the same subtle way that mental attitude affects athletic performance."

ROBERT B. MATHIAS, M.C.

Member, Sears Sports Advisory Staff

"During 25 years of teaching experience, I found that there is an undeniable correlation between physical fitness and mental fitness."

DR. HOLLIS L. CASWELL,

Former President, Teachers College, Columbia University

"The exercise factor is one of the most important, and the most neglected, of the practices individuals should utilize to enjoy the added years science is making possible. It begins to appear that exercise is the master conditioner for the healthy and the major therapy for the ill."

EDWARD L. BORTZ, M. D.

Former President, The American Medical Association

Physical Fitness Thru Circuit Training

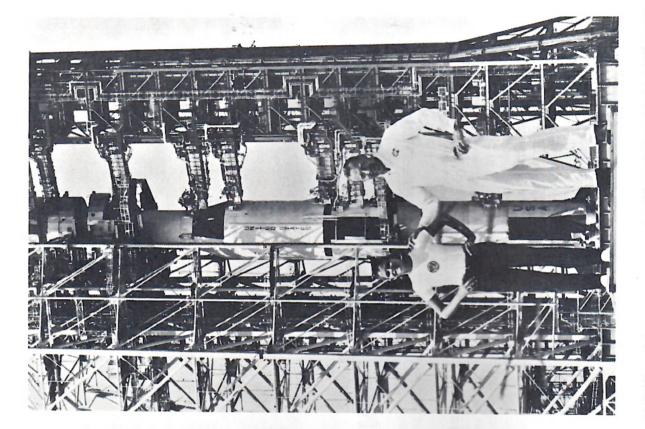
What Is Circuit Training?

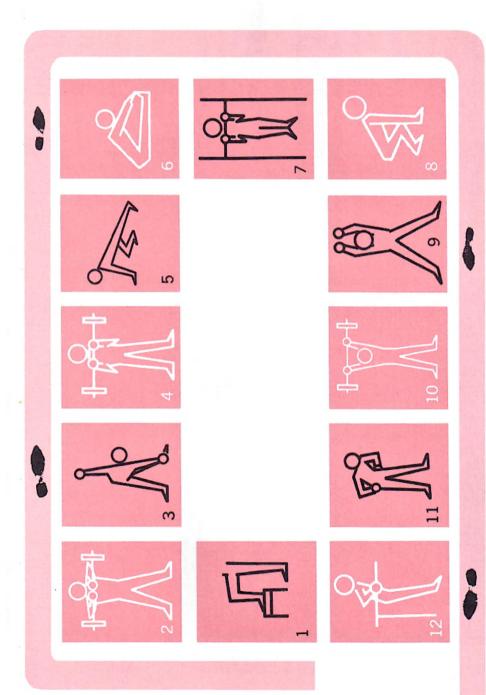
Circuit training is a modern method of physical conditioning which offers an interesting and exciting challenge. Equipment and facilities are utilized in ways which permit the participant to get a complete workout and engage in a variety of activities in a limited time. Circuit training gets its name from the fact that the participant makes one or more trips around a prescribed course, stopping at each station along the way to perform various exercises.

Circuits can be set up without equipment, but gymnasium, playground and athletic apparatus generally is used. The difficulty of the circuit can be increased or decreased to fit the needs of individuals or groups. If equipment and exercises are properly selected, a 10 or 12-station course can be used to condition the cardiorespiratory system and all of the body's major muscle groups.

The circuit illustrated in this booklet was developed by the President's Council on Physical Fitness and Sports primarily for use in schools and colleges and universities. However, it is easily adapted for use by YMCAs, athletic clubs, boys' clubs and other groups.

Consultant to the President on Physical Fitness and Sports NASA Astronaut





THE CIRCUIT TRAINING METHOD

Laying Out the Course

The circuit may be set up anywhere space is available, indoors or out. Gymnasiums and ercise stations should be arranged in a circuit around the field or gymnasium floor and numbered consecutively. Leave an open running lane around the perimeter of the exercise area and leave enough space between stations so playing fields usually are the best locations. Exthat participants do not interfere with each other.

ous and well-rounded workout. These stations The course described in this publication utilizes can be set up indoors or out. Specific instructions for each station are given on the following twelve stations which together provide a vigor-

pages and the complete layout is illustrated

above and on the outside back cover.

Adjusting the Workloads

Three variables—exercise loads, repetitions and time—can be used to add interest and challenge to the circuit. The supervisor may want to set cuits, or he may establish a time limit and see plete during that period. In this program, 12 ticipants attempt to complete the circuit as many times as possible. Difficulty of the circuit a specified time for completing one or more cirnow many circuits the participants can comminutes is allowed for the workout and parcan be increased by increasing repetitions and exercise loads.

1. ROPE CLIMB

2. HORIZONTAL LADDER

3. STADIUM STEPS







Adapting the Circuit to **Local Conditions**

tions for physical conditioning are among the cuit. A variety of calisthenics and stunts also can be employed, as well as various forms of Climbing ropes, horizontal ladders, bleacher or stadium seats, balance beams, uneven terrain other than those given in this booklet, which can be incorporated into a "home-made" cir-The imaginative teacher or leader can think of accomplish the desired purposes and yet adapt ess opportunities of using interesting adaptaare but a few examples of exercise stations, ocomotion, e.g. hopping, jumping, zig-zag runto existing facilities and conditions. The limitundreds of variations on the circuit that will great advantages of the circuit training method. ning and the like.

How to Set Up and Conduct This Program for any Group

Setting Goals

repetitions the performer can do in a 30-second test. In endurance exercises such as the bench step, sprinter and squat thrust, the minute test. Goals should be revised upward as performance In heavy resistance exercises such as bar dips, weight-lifting and pullups, the goal should be approximately half the number of Before goals can be set, a certain amount of testing and experimentation with the individuals or groups involved is necessary. goal should be half the repetitions the performer can do in a one-



Repetitions

Suggested goals for different

age groups will be found at the following pages. There are two suggested levels of the bottom of each card on performance—red and black. The red goals are for beginners, the black for advanced

STEP 2

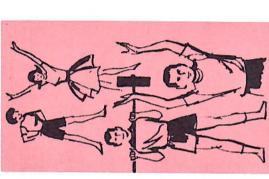
How to Start

The 12-station circuit will accommodate 48 participants performticipant should be instructed to make certain that he can perform ing simultaneously and continuously. Before starting, each pareach exercise properly and safely.

performers at each of the 12 stations. On the command "Ready . . . Go!" the performers begin the exercises, working independ-At the beginning of the workout, there should be four or fewer

ently of each other. Each keeps count of his (or her) repetitions and stays at each station until the even if this requires resting between repetitions. At the end of 12 minutes the command to stop is given and each performer reports the number of circuits and

exercises have been completed,



stations completed. Some instructors place student leaders at the stations to assure that exercises are performed properly.



The "Cards" illustrated on the following pages have been reduced from 14 x 22-inch size. Please see page 18 of this booklet for reproduction specifications and suggestions.

BENCH STEP

ACTION:

- L. PLACE RIGHT FOOT ON BENCH.
- 2. BRING LEFT UP AND STAND ERECT.
- LOWER RIGHT FOOT TO FLOOR.
- 4. LOWER LEFT FOOT TO FLOOR.



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3. Grades 10-12 SUGGESTED GOALS

Black—15 trips Red—10 trips Black—20 trips Red—15 trips

1. Grades 4-6 2. Grades 7-9

4. College and above

Black—30 trips Red—25 trips Black-25 trips Red-20 trips

CARD 1

Use a bench with a firm foundation large enough accommodate six performers at once. The height the bench should be approximately 15 inches.



UPRIGHT ROWING

ACTION:

- **PULL BAR TO CHIN, HOLD** ELBOWS HIGH.
- RETURN TO STARTING POSITION.



PREPARED FOR THE PRESIDENT'S COUNCIL ON PHYSICAL FITNESS AND SPORTS by SPORTS CENTER STAND SPORTS CENTER THE PRESIDENT CENTER STAND SPORTS CENTER THE PRESIDENT CENTER STAND SPORTS CENTER THE PRESIDENT STAND SPORTS CENTER THE PRESIDENT SPORTS CENTER THE P



the weight training exercises. Student leaders should be present at all weight-lifting stations to assure safe, correct performance. structed in the proper procedure for doing Each performer should be thoroughly in-A minimum of 4 barbells should be available.

SUGGESTED GOALS

Black Red Black Red

1. Grades 4-6

Weight 40	8
Repetitions 10 6	
Black	Black
Grades 10-12	College and above

	O	CA	
U	C	CA	7



WINDMILL and JOG

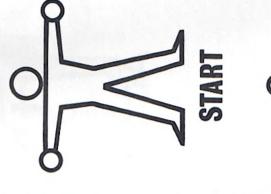
ACTION:

- L. BEND AND TWIST TRUNK, TOUCHING RIGHT HAND TO LEFT TOE.
- L. RETURN TO STARTING POSITION.
- 3. & 4. SAME ACTION TO OTHER SIDE.



PLUS: ALL JOG ONE LAP

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ACTION

CARD 3

The jog is performed outside the perimeter of the circuit. This is not a sprint.

1. Grades 4-6

2. Grades 7-9

Black—6 Red—4 Black—8 Red—6

Black—10 Red—8 Black—12 Red—10 4. College and above

3. Grades 10-12

SUGGESTED GOALS



TWO HAND CURL

ACTION:

- L. CURL BAR UPWARD TO CHIN, **BEND ARMS AT ELBOW.**
- RETURN TO STARTING POSITION.

REPETITIONS REPETITIONS GOAL GOAL-



PREPARED FOR THE PRESIDENT'S COUNCIL ON PHYSICAL FITNESS AND SPORTS BY STATS CENTRY THE BY THE PRESIDENT'S COUNCIL ON PHYSICAL FITNESS AND SPORTS BY STATS CENTRY THE BY T

be available. Student leaders should be from body. A minimum of 4 barbells should present at all weight-lifting stations to assure safe, correct performance. In the starting position the palms face away

ED GOALS	3. Grades 10-12	4. College and abo
SUGGESTED	Weight 10	88
SUG	petitions 6 4	· ∞ •

Black Red Black Red

1. Grades 4-6 2. Grades 7-9

Grades 10-12	Black	= -
College and above	Black Red	20

	1
6	



SPRINTER

ACTION:

REVERSE POSITION OF FEET

START

Z. REVERSE POSITION OF FEET



ACTION

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SUGGESTED GOALS

- Black—12 Red—8 Black—8 Red—4 1. Grades 4-6 2. Grades 7-9
- 3. Grades 10-12
- 4. College and above

Black—16 Red—12 Black—20 Red—16

CARD 5

The back and extended leg should form a straight line, Insist on proper performance.



SIT-UPS and JOG

ACTION:

ROLL UP TO SITTING POSITION.

START

2. ROLL BACK TO STARTING POSITION.

GOAL- REPETITIONS

GOAL- REPETITIONS

ACTION

PLUS: ALL JOG ONE LAP

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The performer should attempt to touch toes if possible. Jog once around circuit before moving to next station.

3. Grades 10-12 Black-16 Red-11

1. Grades 4-6 2. Grades 7-9

SUGGESTED GOALS

4. College and above

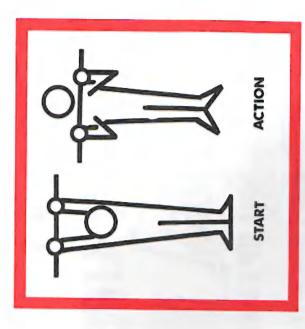
Black—18 Red—13 Black—20 Red—15

CARD 6



PULL-UPS

GOAL- OVERHAND



ACTION

BENT ARM HANG

SECONDS

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An overhand grip, palms facing away from body is used for both the pull-up and the bent arm hang. Per-formers should count seconds aloud.

4-6	7-9
Grades	Grades

2 -i

SUGGESTED GOALS



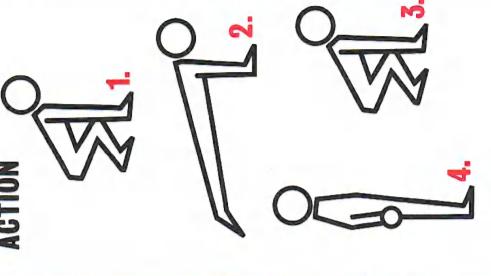
SQUAT THRUST

ACTION:

- L. BEND KNEES PLACE HANDS ON FLOOR.
- THRUST LEGS BACKWARD.
- 5. RETURN TO SQUAT POSITION.
- 4. RETURN TO ERECT POSITION.



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CARD 8

The performer must come to an erect position at the completion of each squat thrust. The back and legs should form a straight line when in the extended position.

SUGGESTED GOALS

4. College and above 3. Grades 10-12 Black—10 Red—6

1. Grades 4-6 2. Grades 7-9

Black—12 Red—8 Black—12 Red—8



SIDE STRADDLE HOP and JOG

ACTION:

- **FOUCH OVERHEAD WHILE MOVING** FEET SIDEWARD AND APART. **SWING ARMS UPWARD AND**
- Z. RETURN TO STARTING POSITION.
- REPETITIONS GOAL-
 - REPETITIONS GOAL

PLUS: ALL JOGONELAP

PREPARED FOR THE PRESIDENT'S COUNCIL ON PHYSICAL FITNESS AND SPORTS by SCRIS CENTER STAND SPORTS Death on the or the or





CARD 9

Insist on good technique in the performance of the side straddle hop. Jog once around circuit before moving to next station.

1. Grades 4-6

2. Grades 7-9

4. College and above 3. Grades 10-12 Black-12 Red-8

SUGGESTED GOALS

Black—16 Red—12

Black-20 Red-16

14

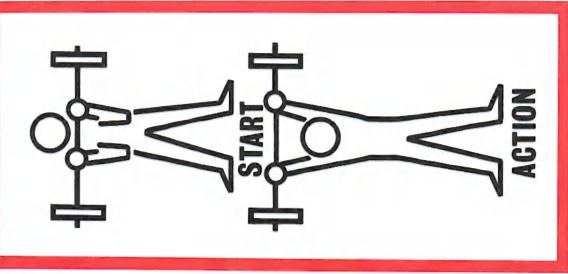
STANDING PRESS

ACTION:

- PRESS WEIGHT OVER HEAD.
- 2. RETURN TO STARTING POSITION.



GOAL- REPETITIONS





PREPARED FOR THE PRESIDENT'S COUNCIL ON PHYSICAL FITNESS AND SPORTS by STORTS CENTER THE BENEVIEW OF THE PRESIDENT OF THE PRE

CARD 10

Weight 30 lbs. 15 lbs. 20 lbs.

of doing this exercise and proper "spotting" methods. Student leader should be present at all weight-lifting stations to assure safe, correct performance. A minimum of 4 barbells should be available. vidual instruction in the

		Bla	Bla
SUGGESTED GOALS		3. Grades 10-12	4. College and above
BGEST	Weight	15 lbs.	20 lbs.
SUG	Repetitions	94	8 20 lbs.
		Black	Black
		l. Grades 4-6	Grades 7-9
		-	2.



TRUNK TWISTER

ACTION:

BEND FORWARD FROM WAIST.

ACTION

- TWIST TRUNK TO RIGHT.
- BEND TRUNK BACKWARD.
- TWIST TRUNK TO LEFT.



GOAL- EACH WAY

PREPARED FOR THE PRESIDENT'S COUNCIL ON PHYSICAL FITNESS AND SPORTS BY STORTS CENTER S

3. Grades 10-12 SUGGESTED GOALS

Black—5 each way Red—5 each way Black—5 each way Red—5 each way

1. Grades 4-6 2. Grades 7-9

4. College and above

Black—5 each way Red—5 each way Black—5 each way Red—5 each way

CARD 11

Performance goals are identical for all groups for the trunk twister. Stress technique improvement.

BAR DIPS and JOG **ACTION:**

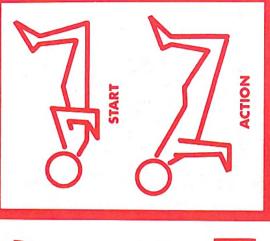
- L. HAND SUPPORT POSITION.
- **C. LOWER BODY BY BENDING ARMS.**
- 5. RETURN TO STARTING POSITION.

ACTION

START







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ee ee

SARD 12

Jog once around circuit before moving to next station.

SUGGESTED GOALS

		Bar Dips	Pushups	
Grades 4-6	Black	40	9	
Orador 7	Dela	7 0	4 0	
. ardues /-5	Dod	00	10 4	
	עפח	0	0	

Lusunbs	12	∞	20	10
Sdin		_	_	

Black Red Black Red

4. College and above

3. Grades 10-12

HOW TO REPRODUCE

THESE "CARDS" FOR USE IN YOUR PROGRAM A set of "cards" will give you a complete, 12-station training circuit. All you need do is enlarge the cards exactly as they are shown on the pages of this booklet. At right, are some suggested methods of production. The cards should be made large enough for group use. Make sure that your students will be able to read them easily.

SIZE

RECOMMENDATION

14x22-inches is an ideal size card for most circuit training groups. Every element is easy-to-read at this size yet the cards are easy to handle and store.

MOUNT OR PRINT ON HEAVY CARDSTOCK

55-point board provides about the sturdiness you need to make the tucards withstand much handling. It You can work directly on board Por on a paper stock which is in then laminated.

PROTECTIVE COATING

Fingerprints, smudges and moisture can ruin your cards in a short time unless you coat them well. Printers can apply a plastic coating or you can use any clear plastic spray.

REPRODUCTION METHODS

--- within a school

1. SCHOOL ART CLASS

This is an ideal project for an intermediate class. Accuracy and neatness should be stressed.

2. SCHOOL PRINT SHOP

Simple, 2-color line work makes this interesting to your print shop. In a letterpress shop, the art class would probably be required to do the figures.

3. SCHOOL PHOTO LAB

Photographic enlargements mounted on boards will give you a fine, 1-color set of circuit training cards. Tinting could be added where desired.

4. PROJECTION TECHNIQUES

A 35mm or view-graph projector will let you show individual cards of the circuit training program. This is advisable only if the group is small as it defeats the "circuit" aspect of the program.

----- outside methods

1. LOCAL PRINTER

Offset printers can easily duplicate the cards for your circuit training program. The printing can be on plastic, card stock or paper mounted to a heavy cardboard.

2. PHOTOSTAT SHOP

Enlarged stats can be made from these pages and mounted on heavy card stock. You should coat these stats with a plastic spray.

3. SIGN SHOP

A single set can probably be produced inexpensively by your local commercial sign shop. The copy can be typeset or handlettered.

duction of these cards. This is the best way to assure proper usage and full participation and it makes QUANTITY PRODUCTION State or regional school organizations should consider mass prothe cards quite economical. Many civic and trade associations have programs for our young. Contact them; see if they would be interested in underwriting the cost of producing these cards for the good of the health and welfare of tomorrow's citizens.

on a FREE LOAN basis are available to you These Sears films

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HIGH IN THE HIMALAYAS

27 Minutes

Join famed explorer Sir Edmund Hillary as his expedition goes high into the Himalayan Mountains tackling the icy mountain slopes to build a schoolhouse for the children of the village.

COME CAMPING IN ALASKA

33 Minutes

the experiences of Sir Edmund Hillary and his family on a 10,000 mile camping trip to Alaska, the "roof of North America." ColorEnjoy the scenic grandeur of our 50th state and share

AMERICA GOES CAMPING

The fun experienced by a typical group of campers is highlighted by special appearances of Ted Williams, Shirley Englehorn, and Adolph Kieffer in this film on modern family camping and travel.

LET'S GO FISHING IN THE NORTHLAND

25 Minutes

Amid the natural Fall beauty of the border lakes, an expert and an amateur seek the wily bass in a film which includes underwater photography of the fish striking.

GROUSE HUNTING WITH TED WILLIAMS

21 Minutes

In the sand hills of Western Nebraska, sportsman Ted Williams takes you along as he seeks out wily, sharptail and square-tail grouse in an exciting sports film. TARPON FISHING WITH TED WILLIAMS There's fast action off the Florida Keys as Ted Williams boats a 130-lb. tarpon. Plugcasting, spincasting and fly rigs are shown in use in numerous fishing spots. 28 Minutes

WONDERFUL WATERWAYS

Color

21 Minutes

All the fun and thrills of water sports—canoeing, swimning, water skiing and pleasure boating—are highlighted with Olympic swimming champ Adolph Kieffer.

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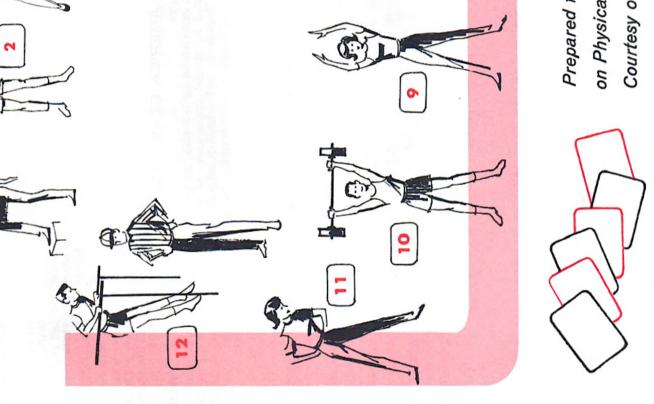
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